ADDENDA TO NOTES ON SOME SPECIES OF LEPIDOPTERA IN RELATION TO THE STRETCH COLLECTION

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EPICNAPTERA AMERICANA (Harris)

1841, Harris, Rept. Ins. Mass., p. 273, *Gastropacha.*

ilicifolia (Auct. nec. Linn.)
1797, Abbot & Smith, Lep. Ins. Ga., I, 101, pl. LI (biol.), *Phalæna.*

occidentis (Wlk.)
1855, Walker, Cat. Lep. Het. B. M., VI, 1392, *Gastropacha.*

carpinifolia (Bdv.) (partim.)
1868, Boisduval, Ann. Soc. Ent. Belg., XII, 83, (partim.), *Lasiocampa.*

form FERRUGINEA (Pack.)
1864, Packard, Proc. Ent. Soc. Phila., III, 386, *Gastropacha.*

race CARPINIFOLIA (Bdv.) (partim.)
1868, Boisduval Ann. Soc. Ent. Belg., XII, 83 (partim.) *Lasiocampa.*

form CALIFORNICA (Pack.)
1872, Packard, Rept. Peab. Acad., IV, 91, *Gastropacha.*

form MILDEI (Stretch)
1872, Stretch, Zyg. & Bomb. N. Am., pp. 113, 240 (pl. IV, f. 12), *Gastropacha.*

roseata (Stretch)
1872, Stretch, Zyg. & Bomb. N. Am., p. 240, pl. IV, f. 12, *Gastropacha.*

race? ALASCENSIS (Pack.)
1872, Packard, in Stretch, and Stretch, Zyg. & Bomb. N. Am., p. 114, *Gastropacha.*

race DYARI (Rivers)
1893, Rivers, Can. Ent., XXV, 114, *Phyllodesma.*

This species presents a number of much discussed and little known names, two of which were put into print by Stretch. The species, with its races and forms, appears to be very generally distributed throughout the United States and probably throughout Canada and Alaska, except for the coldest portions. The Barnes collection possesses 120 specimens from Pa., Ohio, Ill., Wisc., Utah, Colo., Nev., Ariz., N. Mex., Calif., Ont., Man., Alta., B. C., Vanc. Is., and Alaska, while Abbott and Smith figure it from Ga., and *dyari* was described from Texas.

The species seems subject to a wide range of variation in color and maculation in every locality. In fact, it is difficult to obtain two specimens which are identical.

With ten names assigned to this species, it is best to eliminate some of these before proceeding further.

Ilicifolia of Abbot and Smith is presumably an erroneous identification of Georgia specimens as identical with the European species. Spuler's figure of the larva of European *ilicifolia* (Raupen, pl. XVIII, f. 6) is quite distinct from a larva before us labeled *"E. americana."* In fact, the larva of *americana* appears to be more like that of *tremulifolia* as figured by Spuler (Raupen, pl. XVIII, f. 5), but apparently distinct. The two European species were much confused during the time of Hübner, and it is quite likely that Abbott and Smith were calling *ilicifolia, betulifolia* and *tremulifolia, ilicifolia.* Be that as it may, the American species is apparently distinct from European species; *"ilicifolia* A. & S." is based on a misdetermination and is, therefore, unavailable.

The name *occidentis* Wlk. described from North America may be referable to any of the forms. We do not know what Walker's type looks like and leave the name as placed by prior workers.

The name *ferruginea* appears to be based on ferruginous colored specimens of *americana.*

The name *carpinifolia* was described from a single specimen taken by Lorquin in the woods of California, and also from Abbot and Smith's plate of *"ilicifolia."* Boisduval did not, to our knowledge, apply name to, and describe from, figures of other authors unless he possessed actual material. This actual material we would consider, therefore, has a better claim to hold the name proposed than an erroneous reference to some other work or a part of a description drawn therefrom. This idea is rather universally accepted in regard to Linnean specific names, and we see no reason why it should not be applied to subsequent authors. We are quite certain that if we were to publish a name based on material before us, to erroneously assign to the synonymy a misidentification of a prior author and to amplify our description by including early stages described by that author, we would not be pleased to have another

author restrict our name to any form or species which we did not actually possess when we wrote.

If, then, California *americana* should possess a racial name (we are dubious about that point) it would appear that *carpinifolia* Bdv. was the oldest name available based on West coast material. *Californica* Pack. will probably become a synonym, but not having examined Boisduval's type, we propose to list *californica* as a color form. It is always easier to sink a name than to resurrect one. We note that, in general, West coast material appears to have less white contrasts on the primaries, although some Eastern specimens, especially those referable to *ferruginea* lack white contrasts. A specimen compared with the single type of *californica,* at Cambridge, by Dr. McDunnough, indicates a form similar to *americana,* but with less white contrast on the primaries.

The names *mildei* and *roseata* were both assigned by Stretch to the same specimen, a male, Coll. J. Behrens. In the text, page 113, *mildei* is used, but the "explanation of plate 4" gives *roseata,* which is, however, "corrected" on page 240 to *mildei.* The name *roseata* is actually published in connection with the figure. It appears to be neither a lapsus calami nor a typographical error. The Code does not seem clear in regard to what to do with such names. Even if not credited to the original author who has created them "in error," they would apparently be available because of adoption combined with descriptions and indications by subsequent authors. It seems sensible to "credit" *roseata* to Stretch (1872) rather than to some other authorship, say Neumoegen and Dyar (1894, Jour. N. Y. Ent. Soc., II, 153), who adopt it. Certainly, Stretch was the first to recognize that his names were synonymous and has definitely selected the name *mildei* in his attempt to eliminate the name *roseata.* We, therefore, follow him in this, but retain the name *roseata* in the synonymy. Unfortunately, the name represents an intermediate form, lacking all white on the primaries which are red, with the terminal space darkened by gray. Temporarily, we retain *mildei* as a form name. It is, however, a Behrens manuscript name, according to Stretch, and if Opinion 78 of the International Commission be followed, may ultimately have to be credited to "Behrens in Stretch." Personally, we prefer to follow the actual wording of the Code, credit to Stretch as the

first author publishing the name "in connection with" a description, and avoid an awkward authorship of no practical value.

The name *alascensis* must be added to our lists. It is probably one of Packard's names which were to be published in the papers destroyed by the Chicago fire. We understand that some few separates were sent out, that Mr. Nathan Banks possesses one of these, and Stretch presumably had a copy or at least access to Packard's description as he publishes a quotation, enough, we believe, to hold the name and authorship which he credits to Packard; "uniformly dark chestnut-brown, much as above; with the outer band distinct, and with large triangular dusky spots between the venules." By contrasting *mildei* to *alascensis,* Stretch has also published the name. In this case, it appears to us that Article 21 of the Code indicates that authorship can rest with Packard. Had Stretch not put quotation marks around some of the words, we would consider that Article 21 required the authorship to be "Stretch." While the description of *alascensis* is nomenclatorily adequate, it is taxonomically inadequate, so we retain the name as a race of *americana* until either the type can be found or sufficient Alaskan material can be obtained to guess at its status.

The name *dyari* appears applicable to a race or perhaps a distinct species inhabiting Texas, New Mexico, and Arizona. It is somewhat larger and paler than *americana,* although some California specimens appear to be intergrades as far as color. The White Mountains of Arizona produce a form of *americana* which is similar to Colorado material. The differences between the Eastern and West coast races of *americana* is so slight and evanescent, that we are quite at a loss to know how to place specimens from Arizona, Colorado, Utah, Alberta, and Manitoba.

A single wreck of a specimen, its pin bearing one label, "298 Gastropacha mildei California," is in the Stretch collection. We believe the label must somehow have gotten onto this pin in error. Stretch's figure plainly represents an *Epicnaptera* (*Gastropacha*), but the labeled specimen is pale-colored, twice as large as the figure, and presumably represents some exotic species of Lasiocampid not belonging to the genus *Epicnaptera.* It had evidently once been papered, the abdomen being greatly flattened.

At our request, Mr. Van Duzee has again gone over the unlabeled material in the Stretch collection, in search of a specimen agreeing with the figure of *"Arachnis" semiclara* Stretch. Through his efforts, another obnoxious "unplaced name" can now be determined.

ECPANTHERIA SUFFUSA (Schs.)

1889, Schaus, Ent. Amer., V, 190, *Arachnis.*

1892, Kirby, Syn. Cat. Lep. Het., I, 219, *Arachnis.*

1897, Druce, Biol. Centr.-Amer., Lep. Het., II, 378, pl. LXXV, f. 11, *Arachnis.*

1901, Hampson, Cat. Lep. Phal. B. M., III, 386, text fig. 162, *Ecpantheria.*

1924, Barnes & Benjamin, Contr. N. H. Lep. N. A., V (3), 105, *Ecpantheria.*

semiclara (Stretch).

1906, Stretch, Jour. N. Y. Ent. Soc., XIV, 124, pl. XII, f. 18, *Arachnis.*

1906, Dyar id., XIV, 124, footnote, ? near *suffusa, Ecpantheria*; ? = ♀ *albescens, Arachnis.*

1924, Barnes & Benjamin, Contr. N. H. Lep. N. A., V (3), 105, ? = *suffusa, Ecpantheria; Arachnis.*

The species was recorded from the Baboquivari Mountains, Pima County, Arizona, by B. & Benj., 1924, on the strength of 2 ♂, 1 ♀ sent by Mr. O. C. Poling. Since then, we have received from the same locality and collector additional specimens, now making a total of 13 ♂, 3 ♀. The species is a very variable one, and no two specimens before us are absolutely identical.

A single ♂, labeled with only a small, round, white pin label bearing the number "649," is in the Stretch collection. The medial spurs of the hind tibiæ being absent, the specimen falls into the genus *Ecpantheria.*

This specimen has the fore wings practically identical with Stretch's figure, but the hind wing shows a very slight amount of black along the outer margin. The black discal spot and the black costal spots are as illustrated. An examination of the figure shows that it is, apparently, not accurate, as the maculation of the two primaries is drawn somewhat differently in the more minute details. The amount of black on the outer margin of the hind wing of the Stretch specimen is so small that we are inclined to think it was overlooked by the artist. In fact, it has

been practically lost on the right secondary, which is somewhat rubbed.

In view of the existence of the single specimen in the Stretch collection; the extreme variability of the species, most specimens of which would not agree at all well with the Stretch figure; and the practical agreement of his specimen with his figure, we are of the opinion that we have the true type before us. If this specimen be not the type, then it agrees so well with the figure that there seems no reasonable doubt as to what species the figure represents.

As for our determination of this species as *suffusa,* this also seems beyond reasonable doubt, as Dr. Schaus has been kind enough to compare some of our specimens with his type.

TROPISTERNUS SALSAMENTUS Fall (Coleoptera)

This rarely collected species was first described from specimens taken from a small salt lake just back of the ocean beach at Redondo (type locality), California. At that time about a dozen specimens were collected in April and July by Dr. A. Fenyes. Mr. J. O. Martin has taken it at San Diego, California, August 19, 1917. Mr. Warwick Benedict took several at Ensenada, Lower California, July 19, 1924. Recently I have seen a specimen in the collection of Mr. Vasco M. Tanner that was secured at Redwood City on San Francisco Bay, Santa Clara County, California, June 15, 1922. This record extends the known range of distribution of this species quite a distance north of the type locality.—Frank E. Blaisdell.

NEOCLYTUS CARUS AND MODESTUS

During the months of June and July, 1924, I reared a number of *Neoclytus* from oak which I had secured during the preceding winter in Eaton Cañon, near Pasadena, California. Approximately half of these were gray and white, and the remainder yellow and black. These were identified by Dr. Van Dyke as *N. modesta* Fall and *N. carus* Fall. I repeatedly observed copulation between these insects, and always between a gray and a yellow, the latter being the female. Dissection of several of each shows male organs in the gray form and female organs in the yellow form. From this it seems that *N. carus* Fall is the female of *N. modestus* Fall.—A. C. Davis.